UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/652,159	08/31/2000	Te-Kai Liu	YOR9-2000-0385US1	2619

30743　　7590　　04/22/2005	EXAMINER
WHITHAM, CURTIS & CHRISTOFFERSON, P.C. 11491 SUNSET HILLS ROAD SUITE 340 RESTON, VA 20190	FRENEL, VANEL

ART UNIT	PAPER NUMBER
3626	

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/652,159	LIU ET AL.
	Examiner	Art Unit	
	Vanel Frenel	3626	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _28 January 2005_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-20_ is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-20_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All   b)☐ Some * c)☐ None of:

  1.☐ Certified copies of the priority documents have been received.

  2.☐ Certified copies of the priority documents have been received in Application No. _____.

  3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Notice to Applicant

1.   This communication is in response to the Appeal Brief filed on 01/10/2005.

Claims 1-20 are pending.

2.   In view of the Appeal Brief filed on 01/10/2005, PROSECUTION IS HEREBY

REOPENED for claims 1-20 as set forth below.

To avoid abandonment of the application, appellant must exercise one of the

following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply

under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied

by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130,

1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 112

3.   Claims 1-10 and 11-20 are rejected under 35 U.S.C. 112, first paragraph, as

failing to comply with the enablement requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to enable one skilled in

the art to which it pertains, or with which it is most nearly connected, to make and/or use

the invention. The Examiner cannot find any explanation in the specification that

explains the limitation of the "means to invalidate a digital key".

Claim Rejections - 35 USC § 112

4.   Claims 1-10 and 11-20 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention. It is unclear how the claimed invention

includes "means to invalidate a digital key". How is the key invalidated? Does the key

expire on a certain date? Or does the local database include a flag that indicates the

key is invalid? Or is information stored on the key that indicates the key is invalidated?

Or does the key emit a signal that activates/deactivates the engine of the car? For

purposes of applying prior art; the Examiner will interpret this feature as any means for

disabling the automobile. As such, all the dependent claims are rejected under the

same rationale.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Sher (6,386,451) in view of BRINKMEYER et al (2001/0028295).

(A)   As per claim 1, Sher discloses a car rental system comprising:

a fleet of cars, each of which is operable only when a valid digital key

is presented to the car (See Sher, Col.19, lines 38-67); and

a management system for handling reservation and car return, said management

system (See Sher, Col.21, lines 7-52),

a key generation system for generating digital keys for renters of the car rental

system (See Sher, Col.30, lines 46-67 to Col.31, line 31); a key return system for

processing digital keys returned by renters (See Sher, Col.32, lines 35-67).

Sher does not explicitly disclose each of said fleet of cars has a means to

invalidate a digital key.

However, this feature is known in the art, as evidenced by BRINKMEYER. In

particular, BRINKMEYER suggests each of said fleet of cars has a means to invalidate

a digital key (See BRINKMEYER, Page 2, Paragraphs 0023-0026).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to have included the features BRINKMEYER within the system of Sher with

the motivation of preventing the immobilizer from being deactivated when the

associated vehicle is started up (See BRINKMEYER, Page 2, Paragraph 0026).

(B)   As per claim 2, Sher discloses the system further comprising a parking lot

guarded by a security gate, said fleet of cars being parked within confines of said

parking lot when not rented by a renter of the car rental system, said security gate only

opening when a valid digital pass is presented by a renter of the car rental system (See

Sher, Col.42, lines 6-65).

(C)   As per claim 3, Sher discloses the system wherein the management system is accessed by a prospective renter over a network and the prospective renter is given a digital key to operate a particular car and a digital pass to open the gate of the parking lot where said particular car is parked, after said prospective renter completes a reservation for said particular car, said digital key and digital pass being effective starting from the time specified by said reservation (See Sher, Col.42, lines 6-65).

(D)   As per claim 4, Sher discloses the system wherein the prospective renter accesses the management system at a kiosk located in the parking lot where the particular car is parked (See Sher, Col.42, lines 44-65).

(E)   As per claim 5, Sher discloses the system wherein the prospective renter accesses the management system over the Internet (See Sher, Col.21, lines 26-31).

(F)   As per claim 6, Sher discloses the system wherein the key generation system stores a digital key on a storage device provided by a prospective renter (See Sher, Col.32, lines 55-65).

(G)   As per claim 7, Sher discloses the system wherein the storage device is a smart card (See Sher, Col.4, lines 47-67).

(H)   As per claim 8, Sher discloses the system wherein the digital key comprises car and user identification (ID) signed by the management system to authenticate the digital key (Col.13, lines 40-67).

(I)   As per claim 9, Sher discloses the system wherein a renter of a car invalidates a valid digital key upon returning a car to the car rental system and presents an invalidated digital key to the key return system to complete a car return (See Col.12, lines 30-67).

(J)   As per claim 10, Sher discloses the system wherein the invalidation of a valid digital key includes storing car status information relevant to computing by the key return system a receipt for the renter (See Col.40, lines 52-67 to Col.41, line 12).

(K)   As per claim 11, Sher discloses a computer implemented method for operating a car rental system comprising the steps of

accessing a reservation server by a prospective car renter to reserve a car (See Col.37, lines 1-53);

authenticating the prospective car renter by the reservation server (See Col.37, lines 1-53) and,

upon the reservation server successfully authenticating the user, prompting the prospective car renter for the date, time, and location for pickup and return, and the type of car (See Sher, Col.31, lines 1-67);

checking by the reservation server an availability of a requested car and, if a car is available, creating by the reservation server a digital key by car and user information with a digital signature of the reservation server(See Sher, Col.37, lines 1-67);

Sher does not explicitly disclose downloading the digital key to a portable storage device being used to gain access to a rental car without communication between the rental car and the reservation server.

However, this feature is known in the art, as evidenced by BRINKMEYER. In particular, BRINKMEYER downloading the digital key to a portable storage device being used to gain access to a rental car without communication between the rental car and the reservation server (See BRINKMEYER, Page 2, Paragraphs 0023-0026).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the features BRINKMEYER within the system of Sher with the motivation of preventing the immobilizer from being deactivated when the associated vehicle is started up (See BRINKMEYER, Page 2, Paragraph 0026).

(L)   As per claim 12, Sher discloses the method wherein the step of accessing the reservation server is performed via a network (See Col.1, lines 30-43).

(M)   As per claim 13, Sher discloses the method wherein the network is the Internet (See Col.7, lines 19-27).

(N)   As per claim 14, Sher discloses the method wherein the step of authenticating a

prospective car renter includes the steps of

   prompting the prospective car renter to enter a personal identification

   number (PIN) (See Col.18, lines 41-60); and

   comparing the entered PIN with a valid PIN for the prospective car renter (See

Col.19, lines 38-67).

(O)   As per claim 15, Sher discloses the method wherein the step of creating a digital

key comprises the steps of

   computing a hash of the car renter's valid PIN (See Col.18, lines 41-60);

   combining car and renter identification with the hashed PIN (The Examiner

interprets encrypted or decrypted or encoded or decoded or embedded to be a form of

hashed pin See Col.19, lines 7-37); and

   digitally signing the combined information by said reservation server (See Col.37,

lines 1-53).

(P)   As per claim 16, Sher discloses the method further comprising the steps of

inserting the portable storage device by a car renter into a slot for

receiving the portable storage device in a rented car (See Col.38, lines 23-67);

   upon detecting the portable storage device inserted into the slot,

   obtaining by an access controller installed in the rented car the digital key

stored on the portable storage device and checking by the access controller

whether the digital key is valid and verifying the signature on the digital key (See Col.39,

lines 1-34);

if the digital key is valid and the signature is verified, the access

controller then prompting the car renter to enter his or her identification and

checking for correctness of the car renter's identification (See Sher, Col.30, lines

46-67 to Col.31, line 31); and if the entered identification for the car renter matches a

correct identification on the portable storage device, the access controller activating

instruments of the car which the car renter is authorized to have access to (See Col.38,

lines 23-67).

(Q)   As per claim 17, Sher discloses the method further comprising the steps of

upon receiving a car renter's request to return a car, prompting the car renter to

insert his or her portable storage device into the slot for the portable storage device

(See Col.38, lines 23-67); obtaining by the access controller car status information and

car identification (See Col.40, lines 52-67); creating by the access controller a return

packet by combining car status information and the current digital key (See Col.19, lines

38-67); signing the return packet by the access controller, appending the car

identification to the signed return packet, and saving the signed return packet into the

portable storage device (See Col.38, lines 23-67); and invalidating by the access

controller a current digital key (See Col.18, lines 23-67 to Col.37).

(R)   As per claim 18, Sher discloses the method further comprising the steps of

upon receiving a car renter's request to return a car, retrieving the

return packet from the portable storage device (See Col.38, lines 23-67);

verifying a signature on the return packet (See Col.37, lines 1-53); and

updating the car status and printing a receipt for the car renter (See Col.38,

lines 1-9).

(S)   As per claim19, Sher discloses the method wherein the portable storage

device is a smart card (See Abstract, lines 1-16).

(T)   As per claim 20, Sher discloses the system wherein each of said fleet of cars

has a storage device for storing a record of the digital key (See Col.31, lines 22-67 to

Col.32, line 3).

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. The cited but not the applied art teaches hire vehicle

transportation system (5,726,885).

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Vanel Frenel whose telephone number is 571-272-6769.

The examiner can normally be reached on Monday-Thursday from 6:30 am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Joseph Thomas can be reached on 571-272-6776. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

V.F
V.F

April 14, 2005

ALEXANDER KALINOWSKI
PRIMARY EXAMINER